

Gene Section

Short Communication

EIF4A2 (eukaryotic translation initiation factor 4A, isoform 2)

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Identity

Other names: DDX2B

HGNC (Hugo): EIF4A2

Location: 3q28



Probe(s) - Courtesy Mariano Rocchi, Resources for Molecular Cytogenetics.

DNA/RNA

Transcription

1.9 kb mRNA; 1223 bp coding sequence.

Protein

Description

407 amino acids; 4.6 kDa; NH₂-term, ATP binding site, DEAD box, COOH-term.

Expression

Wide; also expressed in the embryo.

Function

ADP/ATP binding; RNA helicase; binds mRNA to the ribosome: role in initiation of protein synthesis; also - binds single strand DNA.

Homology

DEAD box proteins, in particular other EIF4A.

Implicated in

t(3;18)(q27;p11.2) --> EIF4A2/ BCL6

Disease

Non-Hodgkin lymphoma.

Prognosis

Yet unknown (only 1 case available).

Hybrid/Mutated gene

5' EIF4A2 - 3' BCL6; EIF4A2 fuses with the second exon of BCL6.

Abnormal protein

No fusion protein, but promoter exchange.

Oncogenesis

BCL6 is a transcription repressor; it is supposed that substitution of the promoter of BCL6 may be responsible for BCL6 deregulation.

References

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